

# IBOX-600

## NVIDIA® Jetson Orin NX / Orin Nano Fanless Intelligent Computer



- ARM® Cortex®-A78AE 8-core Processor (Jetson Orin NX 16GB)
- 1024 NVIDIA® CUDA® Cores, 32 Tensor Cores
- 3 x M.2 Slots for Wi-Fi / WWAN / SSD Expansion
- 1 x CAN FD for Vehicle Connection
- JetPack™ SDK Includes Development Tools
- Wide-range Power Input 9~60VDC with Smart Power Management
- Wide-range Operating Temperature -25°C~70°C

### Edge AI Application



**CAN FD**  
Enables In-Vehicle Networking



**Wide Range Power Input**  
9~60V DC Input with  
Smart Power Management



**Dual Ethernet**  
RJ45/M12 Model Available



**2.5 GbE**  
Connect to PoE Switch



**GbE**  
Perfect for LiDAR Connection



**Dual USB 3.2**  
High Speed Connection for  
Cameras or Sensors

### Specifications

#### System

- Module**
- NVIDIA® Jetson Orin™ NX 16GB - 100 TOPS (1024 CUDA cores + 8-core ARM Cortex-A78AE CPU + 16 GB LPDDR5)
  - NVIDIA® Jetson Orin™ NX 8GB - 70 TOPS (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8 GB LPDDR5)
  - NVIDIA® Jetson Orin™ Nano 8GB - 40 TOPS (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8GB LPDDR5)
  - NVIDIA® Jetson Orin™ Nano 4GB - 20 TOPS (512 CUDA cores + 6-cores ARM Cortex-A78AE CPU + 4GB LPDDR5)
- Security**
- Internal Security Subsystem with TrustZone

#### Interface

- Ethernet**
- 2 x RJ-45 / M12 X-coded for 1 x 2.5GbE & 1 x GbE
- USB**
- 2 x USB 3.2 Type-A
- Video Output**
- 1 x HDMI 2.1 Type-A Supports 3840 x 2160@30Hz
- Audio**
- 1 x HD Audio from the HDMI
- Serial Port**
- 1 x DB-9 for RS-232/422/485
- CAN Bus**
- 1 x CAN FD
- GPIO**
- 1 x DB-9 for 4 x DI / 4 x DO
- Mgmt. Port**
- 1 x USB Type-C for System Recovery (Device only)
- SIM Card**
- 1 x Nano SIM Card Slot
- Antenna**
- 5 x Pre-cut Holes for External SMA Antenna
- RTC Battery**
- High-capacity Coin Cell Battery for RTC
- UPS**
- UPS for System Power Backup

#### Internal Expansion

- 1 x M.2 2230 Key E slot
- 1 x M.2 3042/52 Key B slot
- 1 x mPCIe Full-size slot (USB 2.0 supported)

#### Storage

- Internal**
- 1 x 480GB NVMe SSD (Pre-Installed)

#### Software

- Operating System / SDK**
- NVIDIA® JetPack 5.1.1 SDK includes Jetson Linux, CUDA 11.4, TensorRT 8.5.2, cuDNN 8.6.0

#### Environmental

- Operating Temp.**
- -25 ~ 70°C, ambient w/ 0.6m/s airflow \* Operating temp. varies by accessories installed.
- Storage Temp.**
- -40 ~ 80°C
- Relative Humidity**
- 10% RH – 90% RH (non-condensing)
- Certification / Standard**
- CE, FCC Part-15 Class A, E-mark\*, EN50155\*, EN45545 (R25)\* \* Ongoing
- Vibration**
- Random - IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
  - MIL-STD-810G - Method 514.6, Procedure I, Category 4
- Shock**
- MIL-STD-810G, Method 516.6, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD

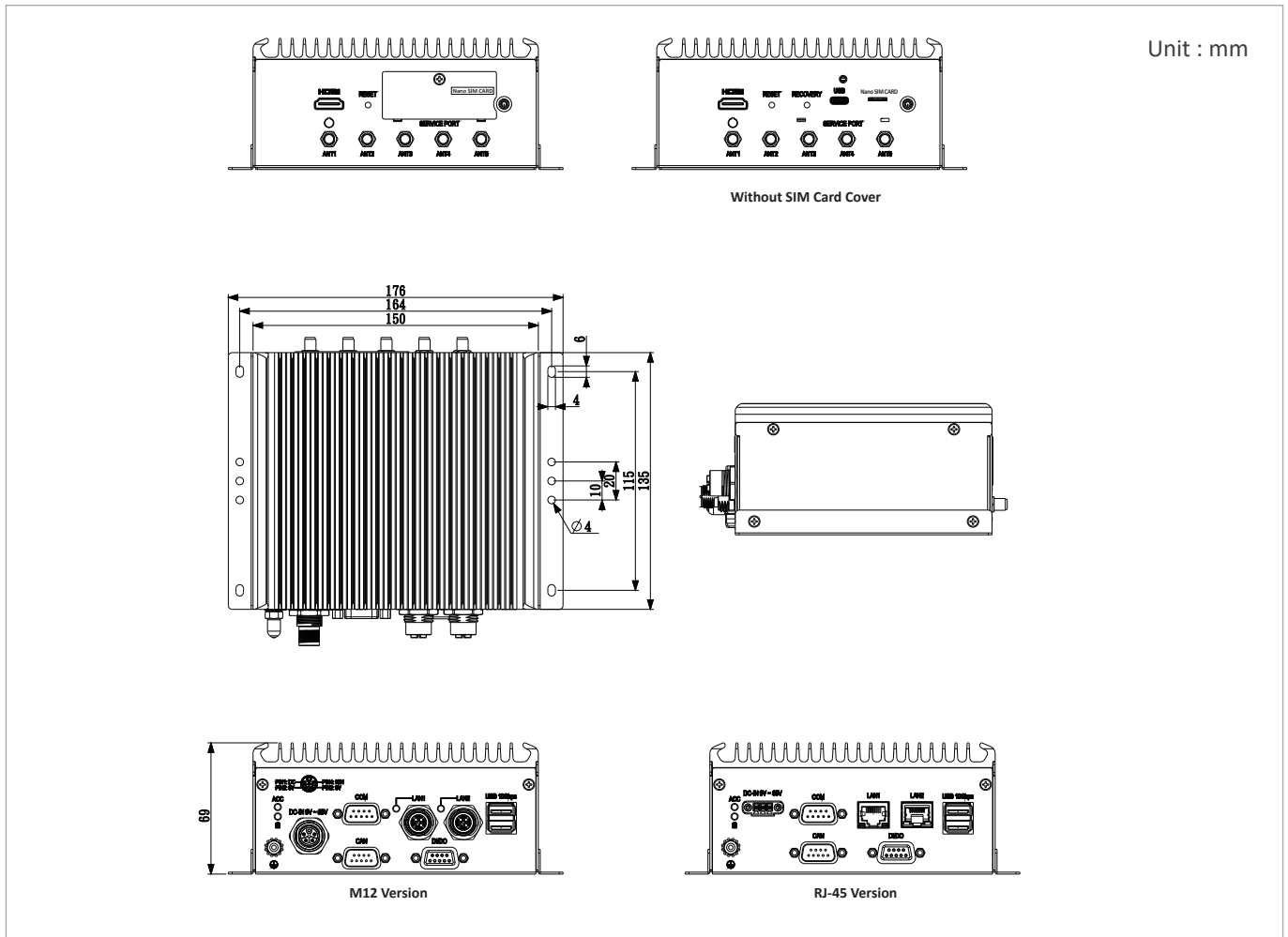
#### Power

- Power Input**
- 1 x DC 9 ~ 60V with Smart Power Management, OCP and OVP

#### Mechanical

- Construction**
- Aluminum Alloy
- Thermal Design**
- Fanless Passive Cooling Design
- Mounting Method**
- DIN-rail, Wall Mount
- Dimensions**
- 150 mm (L) x 135 mm (W) x 66 mm (H)
- Weight**
- 1370 g

# Dimensions



## Ordering Information

Model Number	IBOX-600-xxxx-yyyyy (xxxx = ETH w/ RJ-45, xxxx=M12X= ETH w/ M12 X-coded) yyyyy=ONX16=Jetson Orin NX 16GB / yyyyy=ONX8=Jetson Orin NX 8GB yyyyy=ON8=Jetson Orin Nano 8GB / yyyyy=ON4=Jetson Orin Nano 4GB
Description	NVIDIA® Jetson Orin NX / Nano SoM w / 2x LAN/ 1x HDMI / 1x CAN bus / DC 9-60V / Intelligent Computer
State of Origin	Made in Taiwan

\*Jetson Orin SoM Lifecycle is available through January 2030.

## Optional Accessories

Wi-Fi	M.2 Wi-Fi Module
WWAN Modem	M.2 WWAN Modem
GPS	mPCIe GPS Module
Mounting kit	DIN Rail / VESA Kit

All specifications are subject to change without notice.